

ROCK MILL

WILBER STOUT

Route 3, Rock Mill, Lancaster, Ohio

When the pioneers came across the Appalachian Mountains into the western part of the Allegheny Plateau, or more definitely into Fairfield County, Ohio, they found the rolling, glaciated, hill country well wooded and abounding with running streams fed by clear, cold springs. Massive sandstones, much weathered and reduced, formed many of the ridge crests. Along a few streams in this area such rocks were eroded to deep gorgelike valleys, the result of natural forces and extended time. Such sylvan nooks abounded with plant life of many kinds. Here mosses, ferns, lichens, liverworts, and other low forms were shaded by huge hemlocks, elms, maples, and other large forest trees. In addition, animal life, especially birds, was plentiful.

In years past the Moundbuilder once made his home in this country and left his silent, mysterious mounds as mute evidence of his existence. When first explored by white man, this part of Fairfield County was the home land or territory of the Wyandot Indians, a part of the great Shawnee confederacy. A small band of Wyandots still lived at what is now Hookers and another, under chief Tobey, camped just northwest of Royalton.

Of chief interest is the gorge and upper falls of the stream in southeast Section 25, Bloom Township, Fairfield County. The name "Hock Hocking" was given to the stream by the Wyandot Indians because of the natural resemblance of the gorge to a gourd or bottle. The bowl of the gourd is the large basin at the mill and the neck is the restricted gorge above the falls. Rather odd too that the upper falls of the Hocking River at Rock Mill and the lower falls at Logan are both in the same extension rock formation. The lower falls is over the upper part of this thick sandstone, whereas the upper falls is over a basal portion of the same stratum. The large basin below the upper falls is eroded to a depth of 48 feet or more and to a width of two or three times this dimension. At the mill the stream turned a 26 foot over-shot wheel. The neck of the gourd is the constricted gorge above the falls varying from four to forty feet in width and from 20 to more than 40 feet in depth.

The name "Blackhand" was applied by Hicks in 1878 to a shelter rock on the Licking River near Hanover. On the wall of this overhanging rock the Indians had painted a large blackhand with a black pigment. This figure was supposedly a marker for the flint quarries on Flint Ridge in Licking and Muskingum counties. Later the name Blackhand was applied regionally to the formation. To the oil driller, however, this member is known as the Big Injun sand, after a discovery well on Big Indian Creek in West Virginia.

On the outcrop in Ohio the Blackhand sandstone, from 50 to 250 feet or more in thickness, extends from the Hocking-Vinton County line on the south to above Mansfield, Richland County, on the north. Under cover this massive stratum continues southeastward into southeastern Ohio and extends far into West Virginia. In texture the rock is a coarse-grained sandstone, pebbly in many places; and its color varies through shades of gray, pink, buff, and brown. The chief bonding component is some form of iron oxide. This rock is of marine origin, usually it is definitely marked by lenslike patterns of sand found along the seashore. In this locality the dip of the formation is not far from 20 feet to the mile east and twelve feet to the mile south.

The Blackhand sandstone and associated rocks at Rock Mill belong in the Waverly series of the Mississippian system. As these rocks were laid down in

the ocean and then elevated to a land mass in late Permian time, they have suffered weathering and erosion through several geological ages. Consequently, they are now reduced to hills and valleys with a few hundred feet of relief. Locally, on the outcrop, through differential weathering, resistant layers form bold escarpments, outstanding monadnocks, as at Mount Pleasant, and deep gorges, as at Rock Mill.

The long degradation cycle from Permian time may be divided rather definitely into two parts as follows:

(a) *Gorge below the falls.* The first erosion and weathering period, which accomplished much, extended from the emergence of the land above the sea in late Permian time to the time of the first glacier, the Nebraskan. This ice sheet destroyed the Teays drainage system and inaugurated the Deep Stage. However,

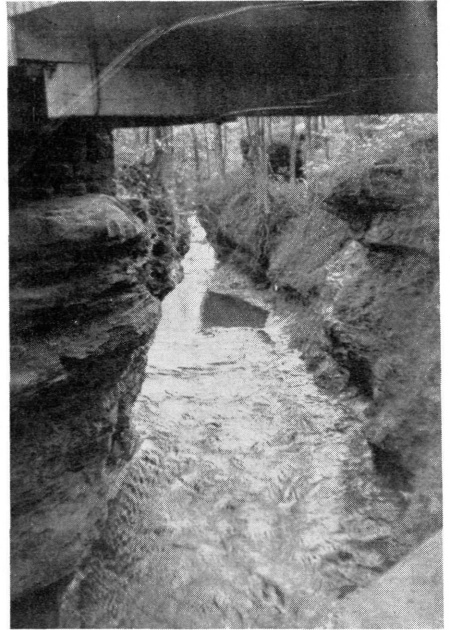


FIGURE 1. The Rock Mill. Photo by Youngstown Sheet and Tube Company.

FIGURE 2. The gorge above the falls. Photo by Theresa Stout.

during this long period of change, which reduced the Allegheny Plateau to hills and valleys, resistant layers held up ridge crests, like Chestnut Ridge to the north, and produced bold escarpments and deep gorges like the so-called cave region of the Hocking Valley. At Rock Mill this level of reduction is quite definitely marked by glacial grooves near the Stout home and by a large pegmatite granite boulder at the corner of the Alspach garden, not far from the mill. Both markers are not much more than 990 feet above sea level. In this area the evidence for the Nebraskan glacier is afforded by the till sheet which is largely weathered away, and by the widely scattered large boulders with some smaller resistant debris. At Carroll the floor of the old Groveport River of Teays age stands at an elevation approximating 650 feet above the sea.

In the massive rocks of variable strength, such as the Blackhand, differential weathering and erosion cause the hard layers to form the rimrock of rugged bluffs, bold escarpments, and deep gorges. In such a variable deposit small

streams cut deep gorgelike valleys like Conkle Hollow, Cedar Falls, Old Man's Cave, Ash Cave, and others of the Hocking Valley. The gorge below the falls at Rock Mill is only an extension of such work farther south. Hence, it was fashioned largely by the various forces of nature during the long period from the Permian uplift to the advent of the Nebraskan glacier.

(b. *Gorge above the falls.* Since only one glacier, the Nebraskan, passed over the Rock Mill area, the time of cutting the narrow gorge above the falls may thus be considered to begin with this ice invasion and to continue to the present. However, some work was done before this time by small streams in a limited basin. The headwaters of what is now the Hocking River formerly belonged to a Deep Stage stream that flowed northeastward through southeastern Section 24, Bloom Township, and diagonally across Section 19, Greenfield Township, to the north-flowing Lancaster River. The Illinoian or the Wisconsin drift sheets, or both, then filled this stream passage with debris and caused the present stream, the Hocking River, to be diverted through a new way to Rock Mill.

This later stream is thus largely responsible for the cutting of the gorge above the falls at Rock Mill. Here the gorge is generally narrow, fairly deep, and about a quarter of a mile long. From the hard rock, bearing the glacial grooves near the Stout residence, to the rock floor of the stream the depth of the gorge is close to 35 feet; under the bridge, just above the falls, it is near 20 feet in depth and so narrow in one place that boys jump from one wall to the other. The upper restricted gorge is cut mainly in strata above the rimrock of the lower broader gorge and thus displays its geological youth. Hence, the two gorges are different in age but similar in workmanship, both resulting from the degrading forces of nature.

Some form of falls has been active for a long time in the Rock Mill area. This fact is evident from the outline of the gorge there, approximately one mile in length. This depression was cut by the headward migration, through falls and rapids, of the excavating powers of small streams through massive rocks. Such work is exceptionally well shown by the many gorges and falls in the Blackhand formation of the Hocking Valley and by that master one, the gorge and falls of the mighty Niagara River. Such accomplishments are referred to as sapping. The causes consist essentially of the direct scouring action of boulders, sand, silt, and rubble passing over the precipice; of loosening of rock particles through solution by water; of chemical changes such as oxidation and hydration of bonding components; of the direct action of plant life on rock surfaces bathed by water or by humid air; of the natural resistance of the rock's texture, whether hard or soft; and of such weather factors as freezing and disiccation.

With just a small flow of water over a falls, these many forces acting together in time will eventually dig and widen a valley to gorgelike proportions. At Rock Mill the large gorge, that below the falls, is the result of such degradation through several geological ages. However, at this place there is a good example of these forces starting to work where the water of the Alspach spring crosses the road and pitches over a low falls into the restricted gorge of the Hocking River. Here a miniature and youthful falls is starting to dig its way to a gorge of small dimensions. At this place most of the forces of excavation listed above are quite apparent.

The present falls at Rock Mill, seen from the bridge, is about 14 feet in height and both falls and swift rapids around 20 feet. However, from the position of the pool and the depth of the pit the stream evidently once pitched from the rimrock at a height of forty or fifty feet. Now, during flood stages, the waters of the stream are really hurled from the higher level and descend into the basin below with violent boiling and swirling. Nature as seen at Rock Mill is thus a wonderful worker when given forces and time.

The headwaters of the Hock Hocking River is, as generally considered, in a

spring on the Silas Alspach farm nearly one mile north and west of Greencastle in southeast Section 16, Bloom Township, Fairfield County. Following the meandering of the stream, the distance from the spring to the falls at Rock Mill is close to six miles but in a straight line only four miles. The entire basin above the falls is less than four square miles in extent and lies almost entirely in southeastern Bloom Township. At the falls the stream is constant, never known to be dry. The water during normal flow is from springs, and during the warm weather of July and August it is slightly cool for wading. Also of importance in the region of the thick Blackhand sandstone, the supply of rock water is abundant and is of high potency.

A feature that attracts attention and causes comment is the deep pool below the fall and adjacent to the mill. This pit in the rock was worn by the impact of boulders, sand, and other debris that came over the falls with sufficient force to abrade the sandstone floor to a deep depression. At one time the falls was evidently much higher than it is at present; absurdly the water pitched from the rimrock some 48 feet or more above. Also, when the dam was in place and when the force of the water was sufficient to keep the pool clean, the millers reported the depth to be about 40 feet. Boys swimming in the pool now state that bottom is reached at 12 or 15 feet. The water in the pool is always cool as it is supplied partially from nearby springs.

In the gorge at the edge of the pool and on the mill side of the basin is a fine spring formerly used for household purposes. The water was drawn by letting a bucket down on a cable from the opposite rim of the gorge. The bucket, properly weighted, filled when lowered to the spring and then, filled, was returned by a windlass. The spring still pours its stream of water from a master joint or open crack in the massive rock.

The stone used in the foundation of the mill was taken from a quarry not far distant down the stream. The material used is from the rimrock where the stone is well bonded by iron oxides and is quite strong, very durable, and weather resistant.

(In this article much data were supplied by Mrs. Millie Dildine Alspach, now deceased, and many measurements were made by Willard and Florence Betz.)

Concerning Rock Mill, really named for the rocks at this scenic spot, Scott says, "Joseph Loveland and Hezekiah Smith, both New Englanders, erected a log grist mill at the upper falls of Hocking, now called Rock Mill. This was the first mill built on the Hocking. It was set low down among the rocks. The grists were taken in at the gable-end and let down to the hopper with ropes and then raised to the level by the same means. The mill was on the old Columbus-Marietta road, seven miles from Lancaster. These men are said to have sold goods at their mill which were brought by pack-horses from Detroit. Also as late as 1822, it is said, there were no grinding facilities in Bloom Township besides one small raccoon-buhr mill" (1877).

Some data on the living conditions of that time are also supplied by Scott, "The settlers subsisted principally on corn bread, potatoes, milk and butter, and wild meats. Flour, tea, and coffee were scarcely to be had, and when brought to the county, such prices were asked as to put it out of the power of many to purchase. Salt was an indispensable article and cost, at the Scioto Salt Works (Jackson) \$5.00 for fifty pounds; flour cost \$16.00 per barrel; tea \$2.50 per pound; coffee \$1.50; spices and pepper \$1.00 per pound."

Some additional notes are supplied by Howe, "This log mill was built in the basin below the falls and around 1820 was washed out by a flood. It was powered by an overshot wheel. The present mill now standing, [1958] was built in 1824 and powered by an overshot wheel, 26 feet in diameter" (1908).

Aside from Loveland and Smith, Rock Mill in its many years of existence passed through several hands. "The next owners were Christian Morehart and

Joseph Knabenshue; then Philip Homrighous; then John Foor. In 1899 the mill was remodeled, a turbine was installed over the falls, replacing the ancient water wheel. The turbine proved unsatisfactory so they changed to steam power. The remodeling was done by Marion Solt, John Foor, and two Alspach brothers, Edward and Jacob. A Mr. Talley was the next owner. He was bought out by J. P. Gundy and F. H. Barlow. The mill then passed to W. S. Alspach. It went out of business about 1905" (Mary and Urcel Alspach, present owners).

In the early days a saw mill was operated by the mill owners about one-fourth mile above the falls. From lumber still around, the crosscut saw operated vertically and the boards were split off from the end of the log. Nearly one mile downstream from the falls a woolen mill operated for many years. Its specialty was blankets.

The mill is built with three main floors, above the rim of the gorge, for the general milling and care of the grain and with two floors below this, within the basin, the upper one for the buhr-stones and their operation and the lower one for the motive gearing necessitated by the water wheel. An opening from the lower floor led to the catwalk and on to the flume and the dam. The general dimensions of the mill as now determined are 34 feet wide, facing the gorge, 38 feet long, and 70 feet high. The timbers for the framework are mainly hand-hewn oak, cut from straight, clear logs. The posts, 16 in number, four full height for each side, and four short ones for the first floor, are 12 x 12 inches in size. Both the corner and wall posts are substantially braced for strong rigid support by 4 by 6 inch timbers. The massive plates that span across the mill are also hand-hewn oak, 14 inches wide by 12 inches thick and 32 feet long. The plates for the first floor are supported by posts, but those on the second and third floors span the entire mill, thus leaving large unrestricted rooms for the spacing of the various milling machinery and storage bins. The framework of the mill is in four bents, for carrying both the lateral and vertical finishing parts. The joists are mainly 3 x 10 inch x 14 feet long, spaced on 4 foot centers. The studs for holding the siding and windows are of 4 by 4 inch material securely mitered into the sills and plates. The weather boards, chiefly yellow poplar and hemlock, are 7 inch wide by $\frac{1}{2}$ inch thick and still serviceable. The flooring throughout the mill is tongue and grooved, 1 and $\frac{1}{8}$ inch thick and is of various widths up to 17 inches and of different lengths up to 22 feet. There are nine windows on a side with frames 31 and $\frac{1}{2}$ by 56 inches.

The grinding operation for the primary milling of the grain was done on the sub-floor of the mill. This is really within the basin of the gorge and is securely framed by heavy timbers, having floor space 12 by 6 feet which contains the buhr-stone and gearing to the water wheel. The coarse grinding buhr is 42 inches in diameter and the lower or fine grinding buhr 48 inches. Each is approximately 12 inches thick. These stones are of cellular flint, probably fashioned at McArthur.

The distance from the main floor of the mill to the rock floor of the gorge is close to 48 feet. The mill race cut through the solid sandstone is about 30 inches in width and 22 feet deep. The dam constructed of heavy timbers was anchored into the walls of the rock just above the brink of the falls. The mill pond thus created was small, only some 35 rods long, but as the stream was continuous, its supply through much of the year was sufficient for grinding.

Most certainly this mill was constructed by millwrights thoroughly familiar with such work. They understood the principles of framework and the value of braces, mortise, and tenon and pinning for strength. Thus, the building was bonded into a rigid mass to withstand the vicissitudes of the natural elements for many years. Good forest timber was plentiful at that time (1824); but today (1958) we ask who felled the trees, who scored the logs, and who wielded the broadax to fashion such structural material? The old mill is still of much interest.

The first buhr stones used in Rock Mill, from 1799 to 1820, were probably of French derivation or from local quarries in eastern Pennsylvania. Those after 1824, referred to as raccoon buhrs, came from the Raccoon Creek basin in central Vinton County. At McArthur the production of buhr stones began as early as 1807. Another possible source was the flint rock on Flint Ridge in Licking and Muskingum counties. The deposits in both places belong on the Vanport horizon, usually marked by a few feet of gray limestone.

Rock Mill, with its mighty beams of hand-hewn oak, and with the sound of the splashing water as it poured over the water wheel, served, for many years, a very useful purpose to the countryside. There, grists were ground; also in the interim, news was dispersed and, in season, bathers enjoyed the cool waters of the deep pool. Now the rugged rocks, tumbling falls, weathered mill, and covered bridge form a scenic spot for viewers, photographers, and artists. The rocks still stand for the supremacy of nature and the mill as an emblem of former days.

LITERATURE CITED

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